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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/794,637	02/03/1997	JOHN S. HENDRICKS	5033	6885

7590

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EXAMINER

GRANT, CHRISTOPHER C

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 01/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/794,637

Applicant(s)

Hendricks et al.

Examiner

Christopher Grant

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 31, 1998.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-158 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-25, 27-52, and 72-158 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-7, 26, 53-56, and 61-71 is/are rejected.
- 7) ☒ Claim(s) 3 and 57-60 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4,7 20) ☐ Other:

(16 sheets)

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 26 and 61-71 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 26 recites the limitation "said headers" in line 2. There is insufficient antecedent basis for this limitation in the claim. Further, note that claims 26-27 are similar to claims 29-30.

Claim 61 recites the limitation "said segments" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 61 recites the limitation "said selected programs" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 53 and 55-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yurt et al. and Bestler et al.

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Considering claim 53, Yurt discloses a method of allocating bandwidth to a plurality of programs comprising:

- a) selecting programs received from television programming sources (see the entire reference including but not limited to col. 18, lines 58-64 and col. 6, lines 1-37); and
- b) allocating bandwidth (col. 17, line 59 - col. 18, line 3).

However, Yurt fails to specifically disclose that the programs correspond to one of a plurality of categories and allocating bandwidth to the categories as recited in the claim.

Bestler discloses a method of allocating bandwidth to a plurality of programs comprising the step of allocating bandwidth to categories. Note that channels A and B are allocated to premium services category, channels X and Y are allocated to pay-per-view programs category and the channels from modulators (62 and 72) are allocated for basic service category. See col. 3, lines 1-34 and col. 1, line 29 - col. 2, line 61. The allocation of bandwidth to programs is a routine function that occurs at every CATV station, but limited to the number of programs and bandwidth available.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Yurt's system to include programs that correspond to one of a plurality of categories and allocating bandwidth to categories, as taught by Bestler, because this is a routine procedure that occurs at CATV stations for providing different subscription programming services.

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As for claims 55 and 56, the combined systems of Yurt and Bestler fail to specifically disclose dynamically changing the bandwidth allocation over time and varying the number of selected programs with at least one of the categories as recited in the claims.

However, recall that Bestler discloses a method of allocating bandwidth to a plurality of programs. Note that channels A and B are allocated to premium services, channels X and Y are allocated to pay-per-view services and the channels from modulators (62 and 72) are allocated for basic services. See col. 3, lines 1-34. In this example, there are 6 channels available and three categories with 2 channels assigned to each category. The ordinary broadcasting operator changes number of programs assigned to a category based on the demand from subscribers. For example, 3 channels may be assigned to premium services, 1 channel allocated to per-per-view and 2 channels may be assigned to basic services.

It would have been obvious to one of ordinary skill in the art to modify the combined systems of Yurt and Bestler (if necessary) to include dynamically changing the bandwidth allocation over time and varying the number of selected programs with at least one of the categories because the skilled broadcasting operator has the ability to change the number of programs in each category based on the demand but limited by the total bandwidth available.

4. Claims 1-2, 4-7 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yurt and Bestler and further in view of Benson.

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As for claim 54 Yurt and Bestler disclose allocating bandwidth to selected programs (as described above in paragraph 3), but they fail to specifically disclose continuing the allocating step until all the programs are allocated or all of the bandwidth is allocated as recited in the claim.

However, Benson (Television Engineering Handbook) discloses that at broadcasting stations each channel (carrying a program) is allocated a 6MHz channel (bandwidth). This is an allocation standard governed by the FCC since the 1950s. For example, programs in the low VHF are assigned channels 2-6 (5 channels), high band VHF programs are assigned channels 7-13 (seven channels) and UHF programs are assigned channels 14-69 (55 channels). In this example, the bandwidth available is limited to 67 channels. This means that up to 67 programs can be assigned (allocated) a channel. Furthermore, the number of programs available at a broadcasting facility is subjected to the number programs received and/or the storage capacity of at the facility. See pages 21.4 - 21.7 and tables 21-1 and 21-2.

It would have been obvious to one of ordinary skill in the art to modify the combined systems of Yurt and Bestler (if necessary) to include continuing the allocating step until all the programs are allocated or all the bandwidth is allocated, as taught by Benson, because the number of programs available for delivery to subscribers is subjected to the number of programs available at the broadcasting station and/or the number of bandwidth available.

The limitations recited in claim 1 is met by the combined systems of Yurt, Bestler and Benson as described in the rejections of claims 53 and 54.

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The limitations recited in claim 2 is met by the combined systems of Yurt, Bestler and Benson for the same reasons as described in the rejection of claim 55 in paragraph 3.

As for claims 4, 6 and 7, the combined systems of Yurt, Bestler and Benson, fail to specifically disclose selecting programs based on buy rates, programs watched information and marketing information as recited in the claims.

The examiner takes Official Notice that it is notoriously well known in the art to select programs for transmission to subscribers based on buy rates, programs watched and other marketing information for the advantage of providing popular programs to subscribers. For example, the Nielsen rating system is the most widely known television marketing survey technique that performs periodic review of television viewer-ship. Broadcasters use Nielsen type rating systems to determine which programs to broadcast to subscribers and advertising rates.

It would have been obvious to one of ordinary skill in the art to modify the combined systems of Yurt, Bestler and Benson (if necessary) to include selecting programs based on buy rates, programs watched information and marketing information, because these are typical subscriber actions that are surveyed by marketing companies to determine which programs to broadcast and the rates for commercials.

As for claim 5, the combined systems of Yurt, Bestler and Benson, fail to specifically disclose selecting programs based on program length as recited in the claim.

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The examiner takes Official Notice that it is notoriously well known in the art to select programs for broadcast based on the length of the programs for the advantage of scheduling similar time slot programs together. It is well known in the art to schedule 1/2 hour programs together and to start 1 hour programs on the hour. For example note the following television schedule or program lineup:

- a) 10:00pm Network magazine (1 hour);
- b) 11:00pm News (1/2 hour);
- c) 11:30pm The Tonight Show (1 hour).

It would have been obvious to one of ordinary skill in the art to modify the combined systems of Yurt, Bestler and Benson (if necessary) to include selecting programs based on the program length, because it is a typical broadcasting technique used for scheduling programs into specific time slots.

Allowable Subject Matter

5. Claims 3 and 57-60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 26 and 61-71 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

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7. Claims 8-25, 27-52 and 72-158 are allowed.

8. Claims 8-52 and 61-158 avoid the prior art because the prior art fails to disclose or suggest a method of allocating bandwidth to a plurality of programs, each programs corresponding to a plurality of categories, the method comprising the steps of prioritizing each of the programs, dividing the bandwidth, allocating and continuing the allocating step; or a method of transmitting a plurality of programs to a cable headend comprising the steps of prioritizing each of the programs, forming, appending a header, dividing bandwidth, allocating and continuing allocating; or a method of transmitting programs to a plurality of transponders comprising the steps of prioritizing each of the programs, forming, allocating, continuing allocating and transmitting; or a method of transmitting a plurality of programs to first and second cable headends comprising the steps of prioritizing each of the programs, allocating a first amount of bandwidth, continuing the first bandwidth allocation, allocating a second amount of bandwidth, continuing the second bandwidth allocation, transmitting programs in the first and second amount of bandwidth to the first and second cable headend; or a computer assisted packaging system for generating program control information, packaging programs and for allocating bandwidth to a plurality of programs, comprising a multiplexer for allocating bandwidth, a delivery control processor for receiving commands from a central processing unit; or a computer assisted packaging system for allocating bandwidth to a plurality of programs, each program corresponding to a plurality of categories, comprising a multiplexer for allocating bandwidth, a

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delivery control processor unit for selecting programs and central processing unit **as recited in the claims.**

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Maeda et al. disclose an allocation switch at col. 6, lines 45-47.

Fitzgerald et al. and Blahut et al. disclose allocating bandwidth.

Freeman et al. disclose allocating bandwidth at col. 5, line 52 - col. 6, line 22.

Closs discloses a multiplexer with priority switching.

Kassatly discloses a multiplexer with bandwidth allocation at columns 19-20.

10. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for formal communications intended for entry and for informal or draft communications, please label "PROPOSED" or "DRAFT")

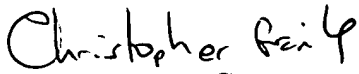
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris Grant whose telephone number is (703) 305-4755. The examiner can normally be reached on Monday-Friday from 8:00am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is (703) 306 0377.


Christopher Grant
Primary Examiner
January 17, 2002